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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/272,542
Filing Date: March 19, 1999
Appellant(s): MADOFF ET AL.

Denis G. Maloney, Reg. No. 29,670
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 24 October 2005 appealing from the
Office action mailed 23 September 2005.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Prior decision regarding this Application- 09/272,542

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,136,501	SILVERMAN et al.	8-1992
6,029,146	HAWKINS et al.	2-2000

Handa et al., "A Tale of Two Trading Venues: Electronically Delivered Orders vs. Floor Brokered Orders on the American Stock Exchange", Proceedings of the 32nd Hawaii International Conference on System Sciences-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Status of Claims

Prosecution on the merits of this application is reopened on claims 1-40, 55-58, and 64-78 and considered unpatentable for the reasons indicated below:
New art has been cited by the BPAI (Handa et al.).

Claims 1-40, 55-58, and 64-78 have been examined.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-13, 55-58, 64, and 71-78 are rejected under 35 U.S.C. 101
because the claimed invention is directed to non-statutory subject matter.

In order for a sequence of operational steps to be statutory the steps must produce a useful, concrete and tangible result. In addition, a sequence of

operational steps must also be in the “technological arts” (*In re Musgrave*, 431 F.2d 882, 167 USPQ 280 (CCPA 1970)).

Claims 1, 55, 64 and 71 do not fall within the technological arts because no form of technology is claimed. Specifically, the claims are silent regarding the role of a computer for achieving a practical application, such as entering an order or matching orders with responses (MPEP, 2100-17, section (ii), *Arrhythmia*, 958 F.2d at 1057, 22 USPQ2d at 1036). Hence, the claimed invention does not promote the progress of science and the useful arts. Claim 64 is also rejected as it is directed to a computer product that is *not* stored on a computer readable medium (MPEP, 2100-13, section (a)).

Claims 2-13, 54-58, and 72-78 are also rejected as they depend from claims 1, 55, or 71.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 3, 24-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable

one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 3 and 24 recite changing the price of a submitted response. However, the Specification is silent regarding a user submitting a response with a relative price, then re-access the submitted response in order to update the price. And, although the Applicant refers to “new pre-defined relative conditions” the Specification is unclear as to how this relates to a submitted response price (Specification, figures 10A-B; page/line 19/5-22/3).

Claims 25-32 are also rejected as they depend from claim 24.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2, 3, 20, 21, 24-32, 38 and 77 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. Claims 2, 20 and 77 are rejected for indefiniteness as it recites the language “less than or equal to about 30 seconds” (2173.05(b) “about”; *Amgen, Inc. v. Chugai Pharmaceutical Co.* 927 F.2d 1200, 1800 USPQ2d 1016 (Fed. Cir. 1991)).

- b. Claim 3 recites the limitation "the price of the responses changes" in line 2. There is insufficient antecedent basis for this limitation in the claim.
- c. Claims 3 and 24 recite updating a price for a submitted response. However, to one of ordinary skill it is not clear how this is possible as the Applicant does not disclose how a user can submit a response with a relative price, then re-access the submitted response in order to update the price (Specification, figures 10A-B; page/line 19/5-22/3). Claim 77 contains similar language.

Claims 25-32 are also rejected as they depend from claim 24.
- d. Claim 21 recites the limitation "the process" in line 1. There is insufficient antecedent basis for this limitation in the claim.
- e. Claim 38 recites "pre-defined relative indications that can exist in the system before an auction for the product has started." However, claim 33, from which claim 38 depends clearly states that responses are entered in response to an order, therefore, claim 38 contradicts the condition for entering a response of claim 33. Otherwise, Applicant's "response" becomes the order and the

“order” becomes the response as the response entered the system first (Specification, page 11, lines 20-32).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-19, 21-40, 55-58, 64-76 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverman et al., U.S. Patent No. 5,136,501 in view of Handa et al., “A Tale of Two Trading Venues: Electronically Delivered Orders vs. Floor Brokered Orders on the American Stock Exchange”.

As per claims 1, 3-19, 21, 24-37, 39, 55, 57, 58, 64-67, 73-76 and 78, Silverman et al. teach a matching system comprising:

- entering an order for a product (e.g. financial instrument) specifying in the order a quantity of the product and an exposure time for which the order can be displayed for responses (abstract; figures 2, 4, and 5; column 8, lines 45-64; column 10, lines 2-10; column 21, lines 5-16)
- entering responses specifying a relative price to a generally accepted indicator and quantity (figure 4)

- matching the order with a first one of the responses that meets all of the conditions specified by the order (column 18, lines 55-58; column 20, lines 36-39)
- retrieving an oldest order and determining whether it satisfies the order (e.g. price condition) (column 16, lines 37-46)
- expiring an order at the end of its exposure time (column 21, lines 5-23)
- entering pre-defined relative indications (e.g. quantity, price, product) that correspond to a willingness to buy or sell the product the pre-defined relative indications specifying a price relative to a current market price (figure 4)
- matching pre-defined relative indications (figure 4) to the order with the pre-defined relative indications ranked by price and within a price ranking by time (column 18, lines 55-58; column 20, lines 25-33 and 36-40; column/line 20/67-21/5)
- determining if a match price falls outside a spread for the product (column 8, lines 45-64)
- a plurality of workstations for entering orders and responses (figures 1-3)
- a server for matching responses and orders (abstract; figures 1-3)
- orders with conditions including executing all of the order or none of the order (column 21, lines 8-11)

[Claims 24, 39, and 57] Silverman et al. teach a "ticker" that provides users (figures 2 and 5; column 8, lines 45-64) with the status of an order book for a

financial instrument (figures 2 and 4; column 8, lines 45-64). Specifically, teach displaying a “best bid/offer” (column 8, lines 55-58) and updating a best bid/offer to reflect received responses (figures 4 and 13-18). Therefore, it is at least obvious that one of ordinary skill would submit a response with a superior price compared to the best bid/offer (figures 4 and 13-18). Silverman et al. do not recite the term “price improvement”. However, Handa et al. explicitly *recite* and teach buy and sell orders with price improvement (page 1, “Introduction”, second paragraph; page 3, footnote 6) as well as contra-side orders (page 1, footnote 2; page 3, section 2). Handa et al. also disclose keeping a pre-defined relative indication undisclosed until matched with an order (page 3, section 2, third paragraph- page 4, line 5) and stock or security order processing at the AMEX (abstract). Therefore, it would have been obvious to one of ordinary skill to incorporate price improvement into the system of Silverman et al. as it is an important part of the underlying price discovery (‘501, figure 4) process (page 1, “Introduction”, second paragraph).

As per claims 22 and 23, financial markets are old and well known. Hence, it would have been obvious to one of ordinary skill to use a broker dealer or market maker to buy or sell a financial instrument and for the buy or sell order to be executed in any fashion in order to achieve the best trade, maximize profit, or make a market. Similarly, clearing organizations are old and well known.

As per claims 38, 40, 56, and 68-72, Silverman et al. disclose an order book system for matching orders (e.g. "fill or kill") with conditions (e.g. exposure time, price and quantity) (column 21, lines 5-16), pre-defined relative indications (e.g. price relative to a market price) (figure 4) such as executing all of the order or none of the order (column 21, lines 8-11), with responses (abstract). Silverman et al. also teach withholding book data from users (figures 4 and 5; column 10, lines 21-28). However, Silverman et al. do not specifically recite pre-defined relative indications that can exist in the system before an auction for the product has started. Handa et al. teach a book system where orders (i.e. Applicant's responses) are maintained in secret until a contra-side order arrives (i.e. Applicant's order) (page 3, section 2, third paragraph). Handa et al. also disclose price improvement (page 1, "Introduction", second paragraph; page 3, footnote 6). Therefore, it would have been obvious to one of ordinary skill to modify the order book system ('501, figure 4) of Silverman et al. to maintain "not-held" orders in order to prevent a price change that would adversely affect a customer (Handa et al., page 3, section 2, fourth paragraph).

Claims 2, 20 and 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverman et al., U.S. Patent No. 5,136,501 and Handa et al., "A Tale of Two Trading Venues: Electronically Delivered Orders vs. Floor

Brokered Orders on the American Stock Exchange”, as applied to claim 1 above and in further view of Hawkins et al., U.S. Patent No. 6,029,146.

As per claims 2, 20 and 77, Silverman et al. teach a system for matching buy and sell orders (abstract) where orders have exposure times (column 21, lines 5-16). Silverman et al. also disclose a user viewing order activity (figure 5; column 10, lines 2-10), therefore it would have been obvious for a trader to place an order with pre-defined relative conditions such as price, quantity and product, in response to orders in the order book (figures 4 and 5). Handa et al. teach price improvement (page 1, “Introduction”, second paragraph; page 3, footnote 6. However, neither Silverman et al. nor Handa et al. specifically teach exposure times of 30 seconds. Hawkins et al. teach an order creation program where a user can create an order with specific price, quantity and time limit parameters (figures 10 and 11) and these parameters are entered before the order is entered (i.e. the process of filling out the order) (figures 10 and 11). Therefore, it would have been obvious to one of ordinary skill to combine the teachings of Silverman et al., Handa et al. and Hawkins et al. in order to allow a user to more accurately express her/his trading interests, such as to consummate a transaction before the end of a user’s session (e.g. 1 hour, 30 minutes, 1 minute, 30 seconds, etc.) (‘501, column 21, lines 13-15; Handa et al., page 4, footnote 9)

(10) Response to Argument

101 Rejection

The Examiner withdraws the 101 rejection to claims 1-13, 55-58 and 71-76, however, the Examiner maintains the rejection to claim 64.

Claim 64 is directed to a “computer program product method of auctioning securities comprises instructions to cause a computer to”. The MPEP is clear regarding computer programs,

... a computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory (MPEP 2100-13, “Non-Statutory Subject Matter” section 1(a))

Therefore, as Appellant's “computer program product method” is not embodied on a computer readable medium it does not define statutory subject matter.

112 Rejection (First Paragraph)

The Examiner maintains the 112 first rejection to claims 3 and 24-32.

Claim 3 recites a response where “the price of the response changes with changes in the generally accepted indicator during the life of the order”. Claim 24 recites

similar language. Claim 1, from which claim 3 depends, recites "entering responses to the order, at least some of the responses specifying a relative price with a price improvement". By Appellant's own admission, Appellant's claims are executed over a distributed networked computer system (Appeal Brief, filed 20 October 2005, page 13, first full paragraph) and, in order to match an order with a response (third limitation of claim 1), the response has to be submitted over the distributed networked computer system. Therefore, Appellant has not disclosed to one of ordinary skill how the price of an entered response can be changed to reflect a change in a "generally accepted indicator". In order to effect such a change, one of ordinary skill would expect Appellant to teach or describe in Appellant's Specification at least a user entering an order, monitoring a "generally accepted indicator" and updating a response price based on the indicator. Appellant discloses a response having a fixed or relative price, or a pre-defined relative indication (Specification, page 9, lines 27-30) these are all fixed parameters and do not change in response to an indicator. And while, figure 9B describes a response having security, price, price improvement, and quantity parameters, where after construction the response is transmitted over a network and queued (Specification, page 18, lines 23-28), Appellant is silent regarding the price changing based on an indicator. In the context of Appellant's claims and Specification, a response specifying a price is entered and transmitted to a remote system for matching. Therefore, in order to update this price, such that the response price can change with changes in an indicator, a user would have to re-access the submitted response or at

least re-enter another response with the changed response. Appellant's Disclosure is silent such a process.

The Examiner did not misconstrue the features of claim 3. The Examiner only desires to see how the feature is accomplished.

112 Rejection (Second Paragraph)

The Examiner withdraws the 112 second paragraph rejection ("lack of antecedent basis") to claim 3, but maintains a second 112 second paragraph rejection to claim 3 over indefiniteness. The Examiner also withdraws the 112 rejection to claim 38. The Examiner maintains the 112 second paragraph rejection to claims 2, 20, 21, 24, and 77.

Claim 2 (20 and 77) recite an exposure time of "less than or equal to about 30 seconds". While it has been held that the term "about" is clear but flexible, the language "at least about" was held by the courts to be indefinite (MPEP 2100-217, "About"; *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.* (CAFC) 18 USPQ2d 1016, 1018, 1031). The *Amgen Inc.* case is for an interval of numbers greater than about (equivalent to at least about) 160,000. Therefore, it holds, mathematically and logically, that the interval of remaining numbers "less than or about 160,000" (or no greater than or equal to about 160,000) would also be indefinite because the two intervals ($> 160,000$ and \leq about 160,000) share a boundary and together define the set of all real numbers (i.e. every

number would fit into one of the interval) (note: 160,000 would not be considered at least about 160,000 therefore it would fall into the " \leq " interval). Replace "160,000" with "30" then indefiniteness would also apply to Appellant's claims 2, 20 and 77.

Claim 3 recites a response where "the price of the response changes with changes in the generally accepted indicator during the life of the order". Claims 24 and 77 recite a similar language. Claim 1, from which claim 3 depends, recites "entering responses to the order, at least some of the responses specifying a relative price with a price improvement". Therefore, it is not clear to one of ordinary skill how the price of an entered response can be changed to reflect a change in a "generally accepted indicator" without remotely accessing and updating the response or re-entering a new response to override the previous response.

Appellant acknowledges the lack of antecedent basis error with regards to claim 21. However, the Appellant has not amended the claims to correct the error.

103 Rejection

Claims 1, 4-6, 9, 10, 13, 24-32, 73 and 76, and claims 35 and 37

"exposure time" and "auction markets"

The Board originally reversed the Examiner based on the Examiner's reliance on Harrington et al. to teach anticipation of Appellant's claims. In the Board's Decision (regarding claim 5) the Board stated that Silverman et al. was closer to Appellant's

system and "easier to apply" (Board's Decision, page 16, lines 10-19) as it is directed to an auction market whereas Harrington et al. is directed to an auction system for initially offering of bonds. The Board in its decision also stated that Silverman et al. do not teach exposure times [Board's Decision, page 16, lines 19-22). Hence, Appellant is stressing that Silverman's lack of an "exposure time" is sufficient for reversing the new rejection. However, the Examiner did not originally cite Silverman et al. as a teaching of exposure time but relied on Harrington et al.. Therefore, regarding "exposure time", the Examiner had not made a case for the system of Silverman et al. to teach this feature in light of what the Examiner believed has taught by Harrington et al.. On the other hand, using the Board's decision as a guide (Board's Decision, page 16, lines 10-12), the Examiner considered Silverman et al. more deeply and discovered that Silverman et al. does indeed teach exposure times. Specifically, Silverman et al. disclose "fill-or-kill" and "good 'till canceled" as time constraints ('501, column 21, lines 5-16) and recognizes each as defining a time for exposing a sell order as Silverman et al. regards each as a "DURATION" ('501, figure 19). Appellant's Specification further explains exposure time as a "fixed period" (Specification, page 8, lines 9-25), but does not exclude non-fixed periods (Specification, page 8, lines 11-13). Nonetheless, all that is required by the claims is an "exposure time" and although claims are to be interpreted in light of the Specification limitations from the Specification are not to be read into the claims (*In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993)). Therefore, as the time constraints "good 'till canceled" and "fill or kill" are measurable (albeit after it has been

matched, killed or the user session has ended) Silverman et al. explicitly recite “exposure times”. Appellant also recognized that the previous Board Decision differentiated Appellant’s claims from the prior art based on Harrington’s lack of a, for lack of a better term- *dynamic* auction market. Specifically, Harrington et al. does not disclose trading, but only a party bringing bonds to market and disseminating those bonds to the highest bidder. The bonds then in turn could not be resold using the system of Harrington et al.. However, based on the passages cited by the Examiner (‘501, figures 13-18; column 4, lines 6-26; column 6, lines 55-68; column 16, lines 36-46; column 17, lines 18-45; column/line 18/35-19/33) the Board understands the matching system of Silverman et al. as being directed to an auction market (Board’s Decision, page 16, lines 12-19), thus Appellant’s assertion is in direct contrast to the clear teachings of the prior art.

“price improvement”

Appellant is of the opinion that the Examiner used Silverman et al. to teach “price improvement” (Appeal Brief, dated 10-20-05, page 24, last full paragraph). This is clearly not the case as the Examiner readily admits that Silverman et al. do not specifically recite “price improvement” (see above rejection- lines 7 and 8 after the last bullet point). On the other hand, Silverman et al. clearly teach entering responses specifying a relative price to a generally accepted indicator and quantity (‘501, figure 4 discloses incoming “bids” and “offers” where each bid and offer has a price and

quantity- e.g. item 73 has a "value" or price of "138.86" and a "primary quantity" or quantity of "5.0"). Recall Appellant defines "relative price" as a price that is relative to a standard variable market price (Specification, page 8, lines 26-28) therefore a response with a price in Silverman et al. ('501, figure 4) is a "relative price" as it is relative to a generally accepted indicator such as the current price of the financial instrument (current price displayed in the ticker or the price entered as part of a sell order) displayed in the ticker or order book at the client (e.g. buyer or seller) workstation station ('501, column 11, lines 15-43; column 12, lines 8-68) (Note: Harrington et al. was not considered a valid teaching of "relative price" because a current price did not exist with the Harrington et al. system. In Silverman et al. this is not the case at least because traders view tickers and order books that display current market data- '501, column/line 11/15-12/68). Handa et al. disclose "price improvement" as an "important part of the price discovery process" and that both buy orders and sell orders can be priced improved (Handa et al., page 1, "Introduction", second paragraph), hence it would have been obvious to one of ordinary skill for a buyer responding to a sell order to incorporate "price improvement" into the price of the response. In response to Handa et al., Appellant appears to deride the teaching because it is done manually (Appeal Brief, page 32, lines 9-12). However, it has been held that it is not invention to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result (*In re Rundell*, 18 CCPA 1290, 48 F.2d 958, 9 USPQ 220; *In re Venner*, 120 USPQ 192,195).

Appellant points out that Appellant's claims are directed to an auction (Appeal Brief, page 26, last full paragraph). In an auction, one of ordinary skill would recognize that a goal is to outbid the prevailing bid, hence as Silverman et al. provide current market data to users (i.e. sellers and buyers) ('501, column/line 11/15-12/68) in order to win the auction, a buyer response price would have to exceed the prevailing bid (i.e. relative price) by some positive quantity (i.e. price improvement) (Note: a response with price quoted as 49.05 would necessarily be treated the same as a response with a price quoted as 49+.05- see Appellant Specification, page 12, lines 8-28).

Claims 2 and 77

Claim 2 was rejected over Silverman et al., Handa et al. in further view of Hawkins et al., U.S. Patent No. 6,029,146.. Silverman et al. disclose exposure times for orders such as "good 'till canceled" or "fill or kill" ('501, figure 19; column 21, lines 5-16). Further, one of ordinary skill would instantly recognize that a "fill or kill" ('501, figure 19) or "Immediate or cancel", "Good until crossed" or "Good until executed" ('146, column 21, lines 27-38) could certainly occur within 30 seconds. And what Hawkins et al. or Silverman et al. define as "immediate" or the "fill or kill" in terms of time is subject to the designers of the respective systems. Hence, if "immediate" was programmed as 5 seconds then all orders and responses matched "immediately" in this instance would qualify as being "less than or equal to about 30 seconds". Hawkins et al. provide an interface for entering "Time Limit" ('146, figure 10, item 424). Hawkins et al. disclose a

"Time Limit" as a code or a date ('146, column 21, lines 26-30) however, the Examiner contends that in view of the interface of figure 10 ('146) one of ordinary skill would not be so limited as to not consider other possibilities (e.g. hours, minute, seconds) for expressing "time limit".

Claim 3

In light of the 112 rejection to this claim, the Examiner is interpreting the claim as follows: the prices of entered response reflect changes in a "generally accepted indicator".

Appellant defines "relative price" as a price that is relative to a standard variable market price (Specification, page 8, lines 26-28) therefore a response (e.g. bid) with a price in Silverman et al. ('501, figure 4) is a "relative price" as it is relative to a generally accepted indicator such as the current price of the financial instrument (current price displayed in the ticker or the price entered as part of a sell order) in the ticker or order book at the client (e.g. buyer or seller) workstation station ('501, column 11, lines 15-43; column 12, lines 8-68). More specifically, in order to satisfy her or his trading desires, regarding price (or quantity) it what behoove a trader to enter responses in line with the market data tickers and order books that display current market data- '501, column/line 11/15-12/68).

Claim 7 and 38, and claims 71, 72, 77 and 78

Appellant is of the opinion that Silverman et al. do not teach “pre-defined relative indications that correspond to a willingness to buy or sell” where the “pre-define relative indications specify a price relative to a current market price”. The Examiner respectfully disagrees. Silverman et al. clearly teach entering responses specifying a quantity and a price relative to a generally accepted indicator such as a current price data displayed in a ticker or the price entered as part of a sell order displayed in a order book at user workstation (‘501, figure 4 discloses incoming “bids” and “offers” where each bid and offer has a price and quantity- e.g. item 73 has a “value” or price of “138.86” and a “primary quantity” or quantity of “5.0”; column/line 6/61-7/5; column/line 11/15-12/68). To one of ordinary skill, the price and quantity of a response (e.g. bid) are pre-defined relative indications as they suggest a desire to buy or sell. Appellant directs Appellant’s claims to an auction system. One of ordinary skill, therefore, would consider a bid for an auctioned product as a “willingness to buy” (i.e. spend money to obtain the product) while the fact the product is for sale in the first place, is at least a “willingness to sell”. Regarding “pre-defined relative indications being undisclosed to participants in the market until and unless matched with an order”, the Examiner relied on Handa et al. and not Silverman et al. as Appellant contends as Handa et al. clearly disclose “not held” orders that reveal nothing about an order to the market while awaiting the arrival of a contra-side order (Handa et al., page 3, section 2, third paragraph- page 4, line 5). In response to Handa et al., Appellant again appears to deride the teaching because it is

done manually (Appeal Brief, page 30, lines 5-10). However, it has been held that it is not invention to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result (*In re Rundell*, 18 CCPA 1290, 48 F.2d 958, 9 USPQ 220; *In re Venner*, 120 USPQ 192,195).

Appellant points out what Appellant regards as a distinguishing feature between the prior art and Appellant's system. Specifically, Appellant states that the order book in Handa et al. relied on to teach the feature "... existing in the system before an auction for the product has started" was incorrectly applied because "once the orders are placed on the [Handa et al.] book, their price is fixed and they lose the opportunity for price improvement" (Appeal Brief, page 32, "claim 38", lines 9-15). The Examiner respectfully disagrees. To one of ordinary skill an order book comprises buy and sell orders (see for example Silverman et al. figure 4), further Handa et al. clearly state that both buy orders and sell orders can be priced improved, hence the Appellant's contention is in direct contradiction to the clear teachings of the combined prior art.

Claim 20 recites "wherein entering pre-defined relative indications can occur before or after an order is entered". Silverman et al. recite submitting an order wherein the order comprises price and quantity parameters ('501, figures 2-4; column 6, lines 31-38; column/line 6/61-7/5). To one of ordinary skill this necessarily requires a user to enter price and quantity prior to transmitting the order to the matching system ('501, abstract, figures 2-4). Therefore, the prior art discloses entering pre-defined relative indications such as price and quantity before *or* after an order is entered.

Claims 14-23

Silverman et al. disclose “fill-or-kill” and “good ‘till canceled” as time constraints (‘501, column 21, lines 5-16) and recognizes each as defining a time for exposing a sell order as Silverman et al. regards each as a “DURATION” (‘501, figure 19). According to Silverman et al., these order types remain in the system until filled, killed, canceled or until the end of the user’s session, thus Silverman et al. specifically recite “an exposure time for which the order can remain active”.

Claims 33, 34, 36, and 39

Appellant is of the opinion that the prior art does not disclose exposure time, entering a response to an order, and a server, for a first one of said orders, determines a match to said first order with the responses and contra-side orders during the exposure time specified by the first order.

Silverman et al. teach Appellant’s “exposure times” as Silverman et al. disclose “fill-or-kill” and “good ‘till canceled” orders (‘501, figure 19; column 21, lines 5-16). Silverman et al. also teach providing users access to ticker and order book data at a user workstation (‘501, figure 4; column 11, lines 15-43; column 12, lines 8-68) and that by observing market activity (e.g. ticker, order book) a user can decide whether to enter an order or response (e.g. offer, hit, take, or bid) (‘501, column/line 6/60-7/5). Silverman et al. also disclose time stamps (‘501, column 10, lines 54-58) and matching based on time precedence (‘501, column 18, lines 51-53), hence there is necessarily a “first

order". Handa et al. disclose contra-side orders (Handa et al., page 1, footnote 2; page 3, section 2). Therefore, the combination of Silverman et al. and Handa et al. teach determining a match with a first one of said orders with responses ('501, column/line 6/60-7/5) and contra-side (Handa et al., page 1, footnote 2; page 3, section 2) orders during an exposure time ('501, figure 19) specified by said first order.

Claims 40 and 65-70

Silverman et al. teach entering responses specifying a quantity and a price relative to a generally accepted indicator such as a current price data displayed in a ticker or the price entered as part of a sell order displayed in a order book at user workstation ('501, figure 4 discloses incoming "bids" and "offers" where each bid and offer has a price and quantity- e.g. item 73 has a "value" or price of "138.86" and a "primary quantity" or quantity of "5.0"; column/line 11/15-12/68). To one of ordinary skill, the price and quantity of a response (e.g. bid) are pre-defined relative indications as they suggest a desire to buy or sell. Appellant directs Appellant's claims to an auction system. One of ordinary skill, therefore, would consider a bid for an auctioned product as a "willingness to buy" (i.e. spend money to obtain the product) while the fact the product is for sale in the first place, is at least a "willingness to sell". Handa et al. disclose "... existing in the system before an auction for the product has started" as Handa et al., recite "not-held orders" as revealing little or nothing about an order to the market (Handa et al., page 3, section 2, third paragraph- page 4, line 5), and not the

identity of the trader as the Appellant contends. Further, to one of ordinary skill an order book comprises buy and sell orders (see for example Silverman et al. figure 4), and Handa et al. clearly state that both buy orders and sell orders can be priced improved (Handa et al., page 1, "Introduction", second paragraph), hence the Appellant's contention is in direct contradiction to the clear teachings of the combined prior art.

Claims 55-58, and claim 64

Regarding "price improvement", Appellant points out that Appellant's claims are directed to an auction (Appeal Brief, page 26, last full paragraph). In an auction, one of ordinary skill would recognize that a goal is to outbid the prevailing bid, hence as Silverman et al. provide current market data to users (i.e. sellers and buyers) ('501, column/line 11/15-12/68) in order to win the auction, a buyer response price would have to exceed the prevailing bid (i.e. relative price) by some positive quantity (i.e. price improvement). Similarly, one of ordinary skill would also recognize that in order to make an offer more attractive a seller can offer a product for sale at a price lower than a current price. Hence, a seller offering a product for a sale at 48.95 ('501, figure 4- for examples of orders and responses comprising price and quantity parameters and figure 5 for a ranking of incoming offers and responses) when the current price is 49.00 is creating an offer with a price improvement of .05 (note: this price improvement is a minimum if the user cannot go an lower and determines that this is her or his best offer).

Conclusion

When considering Appellant's claims the Examiner only asks that the claims be viewed through the lens of one ordinary skill (*In re Delisle*, 160USPQ 806 (CCPA 1969); *In re Shepard*, 138 USPQ 148 (CCPA 1963)). By doing so one would instantly realize the breadth of Appellant's claims. Appellant's claim 1, for example, is directed to an auction system. Given this context, suppose one would like to sell (say) 100 shares of Wal-Mart. This person would then have to create an "order" specifying the quantity (100 shares) and the ticker symbol (WMT). Another party observing the market notices the order and responds to the order with a "response" indicating a price (i.e. bid). However, there are other parties also observing the market, and despite its recent troubles might also want to own 100 shares of Wal-Mart and these parties will each also submit a response with a price. Depending on the strategy of the seller (e.g. first come first server, highest bidder, negotiation, etc.) the sell order is matched with the buy order or response and the auction for this 100 shares of Wal-Mart is over ('501, figures 2-4; column 1, lines 18-28). Now the only thing missing from the above scenario is a sell order with an "exposure time" and a response with "price improvement". Regarding "exposure time" Silverman et al. disclose Fill-or-Kill and Good-until-canceled, and each is considered an "exposure time" at least by Silverman et al. as each is considered a "DURATION" of time (figure 19) and a time constraint (column 21, lines 5-15). Regarding "price improvement", Handa et al. disclose it as an "important part of the price discovery process" (Handa et al., page 1, "Introduction", second paragraph),

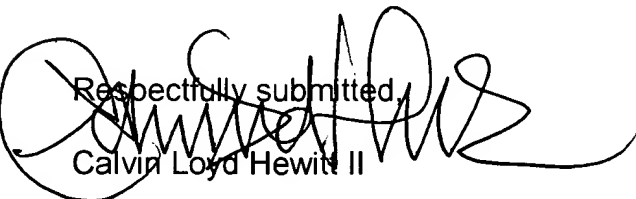
therefore, the Examiner contends that one of ordinary skill would instantly recognize it as a desirable feature to be incorporated into the sell order or buy response process exemplified in an auction by a buyer outbidding the current highest bid, or a seller offering a product for sale at a price lower than the current price ('501, figures 4 and 5).

(11) Related Proceeding(s) Appendix


Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

The Appellant has provided a copy of the previous decision to the Application in the Appeal Brief filed 20 October 2005.

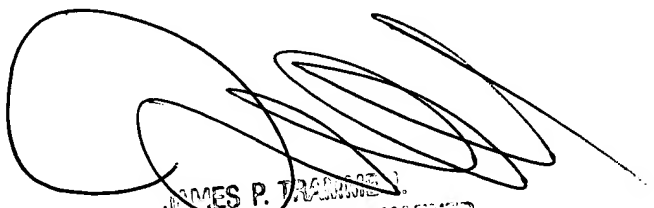
For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Calvin Lloyd Hewitt II

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James P. Trammell 

Hyung Sough 


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